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BEDS OF THE GORILLA AND CHIMPANZEE

BY C. R. ASCHEMEIER

During my stay of over two years in the Gaboon District, French Congo, I was much interested in the sleeping nests or "beds" of the gorilla and the chimpanzee; and it was my good fortune to find numbers of these beds belonging to each species. Both animals, according to my observations, make their beds in as secure places as they can find, but the chimpanzee seems to favor the greatest retirement, with less chance of disturbance from its foes of the jungle. I did not see a single bed of the chimpanzee on the ground, and they were usually constructed well up in the fork or crotch of tall and quite slender trees. In no case was the nest of the chimpanzee constructed in a tree measuring over a foot and a half in diameter at the base; and the trees selected were with few branches, a good distance apart. The lowest chimpanzee bed noted was about 30 feet from the ground, and the highest (two beds here quite close together) was fully 60 feet up.

Not long after my arrival at Omboue, Fernan Vaz, from Cap Lopez, and while still a bit "green," I went into the bush a short distance, accompanied by a native boy as a guide, to look for specimens. After we had wandered about for quite a long time and had secured a few birds, my companion suddenly stopped and gazed into the upper part of a tree. I could not at first see anything and asked what was there. He replied "N'chigo anago," and as I was still new to the language I was inclined to let it go at that, but he finally managed to make me understand what he meant—a chimpanzee bed or house. He then climbed up and investigated, and when he came down I ascended. I was quite played out by the time I reached the bed, but I examined it as well as I could, with one arm free to investigate. It was in a crotch of the tree and was well made of leaves from the same tree together with what looked like parts of bushes from off the ground. From what I have learned in regard to the bed of the orang-utan, I should judge that the nests of these two apes are very similar. I wondered, and have since often been asked, if the chimpanzee uses the bed more than once. Reliable natives all agreed in saying that the same beds are never twice used.

Later on I was collecting in the bush one day when, as it was getting quite late, I decided to return to camp. I had with me at the time my most faithful and efficient guide and helper, Pambo, who suddenly stopped short in his tracks. On looking up I saw three dark forms

in a tree, and these proved to be chimpanzees preparing a bed. I was very anxious to see more of the work, but the animals unfortunately saw us and hastily started to descend. At least one of them, I was sure, was not doing any of the work and the impression I got was that it was "bossing the job." This one was the last of the three to start down the tree, and as I was able to shoot it, I found it to be a male of the type known to the natives as "koola-kamba."

The chimpanzee beds later discovered were all very much of the style of the first ones examined. The chimpanzees were usually up and about at the break of day, and were in their beds, or near them, as a rule, by sundown or shortly after.

The beds of the gorilla I found to be much more variable. Some were similar to those of the chimpanzee, but the natives always knew the difference, and if the nest had been used the night before I myself could easily tell what the occupants were. The gorilla has an odor almost as characteristic and prominent as its terrific yell. To describe this odor is quite impossible. It is pungent, and smells a bit like rubber. Often while walking along we would suddenly detect the odor of the gorilla, and on investigation find where the animals had passed or had stopped to eat.

Another style of the gorilla bed is an oblong affair on the ground, composed of bushes, grasses, and ferns. While it is not made as a man would make a similar bed, still, on seeing it, one could not say that it was not a good job. Still another type of the gorilla sleeping quarters is that where nests are made by bending and breaking saplings so that three or four will come together at the tops, thus forming a fair bed. The trees are not broken off entirely, but, about midway, just enough so they will stay down. One of the most interesting features about the beds of the gorilla is that they are made in close proximity to streams of water, where mosquitoes and insects of many kinds are particularly abundant. Perhaps the gorilla knows that other dwellers of the jungle will not stay in such places.

The natives tell me that some old male gorillas stay by themselves, and that these solitary males are the ones that use the oblong ground nests and the beds formed by the bent over saplings. The tree nests are used by the gorilla families; the old female together with the young reposes in the tree and the old male of the family sits at the base with his back leaning against it, on the lookout for his enemy the leopard. This is one of the habits that shows the great courage of the gorilla; I was told of one encounter, to the death of both, between a gorilla

and a leopard. Sometimes I saw where the male had wandered a short distance from the tree in the early morning to gather the itando plant and fruit, the hulls of which were at the base of the tree beneath the nest.

The gorilla usually left his bed shortly after daybreak in the morning; but on several occasions I surprised families, evidently "sleepy-heads," in bed an hour or two after break of day. These usually waited until we got very close to the beds and then gave out their disconcerting yells and made off. By dusk the gorillas were all in the beds.

U. S. National Museum, Washington, D. C.

DIAGNOSES OF SEVEN NEW CHIPMUNKS OF THE GENUS EUTAMIAS, WITH A LIST OF THE AMERICAN SPECIES

BY ARTHUR H. HOWELL

Recent studies of the North American chipmunks, based on the extensive series in the Biological Survey collection, supplemented by a large amount of material loaned by other museums, have revealed the existence of a number of unrecognized forms and have resulted in a much clearer conception of the relationships of the various forms.

Since publication of the complete results of these studies may necessarily be delayed for some time, it is deemed wise to publish now preliminary descriptions of the new forms and a list of the species grouped to show their relationships.

***Eutamias minimus arizonensis* subsp. nov.**

Type.—No. 205,869, U. S. National Museum (Biological Survey collection); male adult, skin and skull; from the Prieto Plateau at the south end of Blue Range, Greenlee County, Arizona; collected September 7, 1914, by E. G. Holt; original number 384.

Subspecific characters.—Similar in size and cranial characters to *Eutamias minimus atristriatus*; nearest in color to *E. minimus consobrinus*, but general tone more grayish (less tawny), the shoulders frequently washed with pale smoke gray (as in *Eutamias cinereicollis*); tail more bushy and color of under surface brighter tawny (about as in *operarius*).

Measurements of type.—Total length, 197; tail vertebræ, 87; hind foot, 30; ear from notch, 12. *Skull*: Greatest length, 32.6; zygomatic breadth, 18; mastoid breadth, 14.5; interorbital breadth, 7.1; length of nasals, 10.1.

Remarks.—This race of the least chipmunk is restricted, so far as known, to the White Mountains and Prieto Plateau of eastern Arizona. It occurs over a